

## ABSTRACT

Computer-implemented methods, systems and apparatus, including computer program apparatus, provide techniques for designing a set of experiments to be performed with a set of resources. A plurality of experimental configurations are generated based on a set of parameters describing factors to be varied in the experiments and a set of constraints representing limitations on operations that can be performed with the set of resources. A set of experiments is defined based on a selected configuration. The constraints can be represented as patterns defining an application of a parameter to a set of one or more points of an experimental lattice.

50072396.doc